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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,594	11/25/2003	Jovan E. Lebaric	95907	5780

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OFFICE OF PATENT COUNSEL
SPAWARSYCEN, CODE 20012
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EXAMINER

DINH, TRINH VO

ART UNIT PAPER NUMBER

2821

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/721,594

Applicant(s)

LEBARIC, JOVAN E.

Examiner

Trinh Vo Dinh

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 13, 19 and 23 is/are rejected.
- 7) ☒ Claim(s) 4-8, 10-12, 14-18, 20-22, 24-28b is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/25/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. There are two claims numbered 28 in the application. The Applicant is required to renumber the claims. For a purpose of the examination, The Examiner rennumbers these claims as claim 28a and 28b respectively.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 9, 13, 19 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Button et al (USP 5,534,880 of record).

With respect to claims 1, 9, 13 and 23, Button discloses an antenna apparatus (10) comprising a coaxial antenna feed line (40, col. 4, lines 34+) having first and second conductors; a driver section comprising a pair of cones (18, 18), each of said cones having an apex region, said cones arranged so that said apex regions are spaced apart and are adjacent and in which one of cones is connected to said first conductor and a second of said cones is connected to said second conductor (col. 4, line 34 to col. 5, line 16), and a beam shaper section (20 in Fig. 2) including a beam shaper element (12) having a beam shaper surface of a shape chosen to provide selected antenna operating characteristics and a conforming surface that is disposed in substantial conformity with a crotch defined between said two cones. Button further discloses the shape of the beam shaper surface being convex

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(since the beam shaper 20 is a cylindrical shape as defined in col. 3, lines 2-3, the shape of the beam shaper is convex).

With respect to claim 2, Button discloses the cones (18) being reflectively opposing, substantially identical, cones.

With respect to claim 19, Button discloses the beam shaper element (20) being a dielectric (col. 3, lines 5-7).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Button in view of Strickland et al (USP 6,369,766).

Button discloses every feature of the claimed invention except the cones being asymmetric. Strickland discloses upper cone and lower cone being asymmetric (col. 8, lines 23-25). It would have been obvious to one having skill in the art to employ Strickland's teaching of using different sized cones in Button's antenna apparatus in order to achieve desired beam characteristics.

Allowed Subject Matters

6. Claims 4-8, 10-12, 14-18, 20-22, 24-28b are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of

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the limitations of the base claim and any intervening claims and /or rewritten to overcome the objections set forth in the office action.

7. The following is a statement of reasons for the indication of allowable subject matter:

The cited art of record fails to teach said cones being oblique circular cones/ oblique elliptical cones, or at least one of said cones has a plurality of slope faces, or the shape of the beam shaper surface being substantially spherical, or said beam shaper element being a first of first and second beam shaper elements wherein said first beam shaper element substantially surrounds said second beam shaper element, each of said beam shaper elements having different dielectric properties.

Inquiry

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821.

The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access

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to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197

(toll-free).

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A handwritten signature in black ink, appearing to read 'Trinh Vo Dinh', with a long horizontal flourish extending to the right.

Trinh Vo Dinh

January 09, 2005